

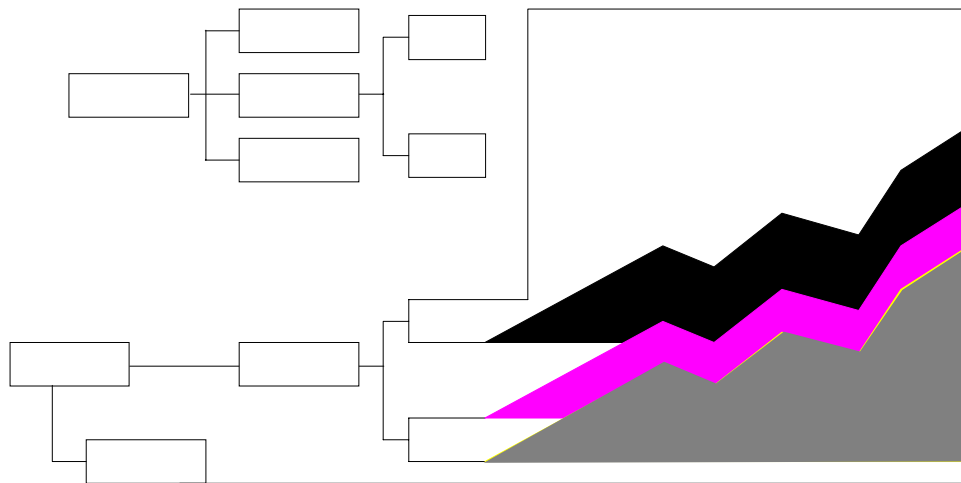
---

*Monthly Summary of*

**Program Financial and Budget Information**

---

FY 2000 Year-end Report



**Office of Civilian Radioactive Waste Management**  
Office of Program Management and Administration

---

## Foreword

The *Monthly Summary of Program Financial and Budget Information* is a compendium of program-level financial and budget information which is intended to assist the Director, OCRWM, in managing the program. It utilizes the Program Work Breakdown Structure and the Budget and Reporting codes instituted at the start of FY 1997.

The report provides a variety of financial and budget-related data, including Nuclear Waste Fund status, Total System Life Cycle Cost (TSLCC) estimates, historical data on cost and budget, and current year obligations and costs. Major sources of data include the Financial Information System (FIS) and the Approved Funding Program (AFP).

The report focuses on the program level; it is not meant to duplicate more detailed project or contractor reporting.

Questions or comments regarding the *Monthly Summary of Program Financial and Budget Information* should be forwarded to the Director, Program Management Division, RW-53.

# Monthly Summary of Program Financial and Budget Information

## Table of Contents

	<b><u>Page</u></b>
<b>1.0 Program Overview</b>	
FY2000-FY2001 Budget Formulation Summary	1-1
Nuclear Waste Fund Balance and Income Stream	1-2
Nuclear Waste Fund Income Sources and Disbursements	1-3
Draft 1999 Total System Life Cycle Cost Report	1-4
Manpower - Federal Personnel	1-5
Manpower - Contractor Personnel	1-6
FY2000 Obligation and Cost Status - Program	1-7
<b>2.0 Yucca Mountain Site Characterization Program Element</b>	
FY2000 Obligation and Cost Status	2-1
<b>3.0 WAST Program Element</b>	
FY2000 Obligation and Cost Status	3-1
<b>4.0 Program Integration Program Element</b>	
Quality Assurance FY2000 Obligation and Cost Status	4-1
Program Management FY2000 Obligation and Cost Status	4-2
Human Resources & Admin. FY2000 Obligation and Cost Status	4-3

## Monthly Summary of Program Financial and Budget Information

### Appendix

	<b><u>Page</u></b>
<b>Program History</b>	
Major Historical Milestones	A-1
Program Cost History	A-3
Program Budget History (Figure)	A-4
Program Budget History (Table)	A-5

**FY 2000 - FY 2001  
BUDGET FORMULATION SUMMARY**

(dollars in thousands)

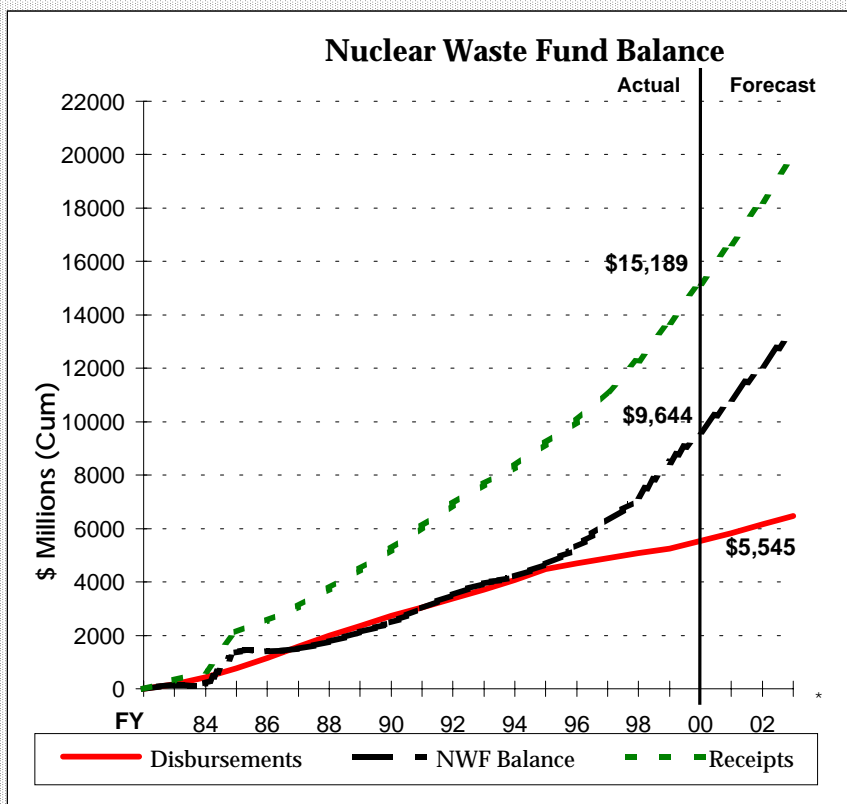
PROGRAM ELEMENT	FY 2000 CONGRESSIONAL BUDGET REQUEST (a)					FY 2000 ENACTED Appropriation (f)	FY 2001 CONGRESSIONAL BUDGET REQUEST (g)					FY 2001 ENACTED Appropriation (l)
	FY 1998 Enacted Appropriation	FY 1999 Enacted Appropriation	FY 2000 Budget Request (b)	FY 2001 Budget Request (c)	FY 2002 Budget Request (c)		FY 1999 Enacted Appropriation (h)	FY 2000 Enacted Appropriation (i)	FY 2001 Budget Request	FY 2002 Budget Request (j)	FY 2003 Budget Request (j)	
YUCCA MOUNTAIN SITE CHAR. PROJECT	\$267,710	\$282,414	\$331,667	\$279,698	\$267,911	\$281,175	\$281,879	\$281,175	\$358,306	\$357,917	\$349,115	\$313,542
WASTE ACCEPTANCE, STORAGE AND TRANSPORTATION	\$5,947	\$1,850	\$5,730	\$22,230	\$34,550	\$1,795	\$1,850	\$1,795	\$3,800	\$6,118	\$22,050	\$2,661
ACCELERATOR TRANSMUTATION OF WASTE		\$4,000				\$0	\$4,000					
PROGRAM INTEGRATION:												
Quality Assurance	\$0 (d)	\$0	\$0	\$0	\$0	\$0	\$0 (d)	\$0	\$0	\$0	\$0	\$0
Program Management	\$5,049	\$6,009	\$6,260	\$6,260	\$6,390	\$4,761	\$6,009	\$4,761	\$5,921	\$6,388	\$6,390	\$6,233
Human Resources & Admn.	\$4,814	\$5,241	\$5,532	\$5,532	\$5,402	\$3,860	\$5,241	\$3,860	\$5,845	\$5,693	\$5,561	\$5,838
Total Program Integration	\$9,863	\$11,250	\$11,792	\$11,792	\$11,792	\$8,621	(e)	(e)	(e)	(e)	(e)	(e)
PROGRAM DIRECTION	\$62,480	\$58,486	\$59,811	\$56,280	\$55,747	\$59,584	\$58,486	\$59,584	\$63,628	\$61,384	\$59,884	\$62,800
Total Program Integration	(e)	(e)	(e)	(e)	(e)		\$69,736	\$68,205	\$75,394	\$73,465	\$71,835	\$74,871
<b>TOTAL PROGRAM</b>	<b>\$346,000</b>	<b>\$358,000</b>	<b>\$409,000</b>	<b>\$370,000</b>	<b>\$370,000</b>	<b>\$351,175</b>	<b>\$357,465</b>	<b>\$351,175</b>	<b>\$437,500</b>	<b>\$437,500</b>	<b>\$443,000</b>	<b>\$391,074</b>
TOTAL FEDERAL STAFFING (FTEs)	202	196	195	195	195	195	183	196	200	(k)	(k)	200

Note: This chart uses the actual structure (i.e. Program Elements) used in the budget submissions in the OCRWM budget formulation process.

- (a) Funding for selected support service contracts has been removed from the YMP, WAST, QA, PM, and HR&A elements and added to the Program Direction element. The funding moved for each fiscal year follows. For FY 1998: YMP (\$27,860), WAST (\$870), QA (\$1,539), PM (\$1,925), and HR&A (\$3,680). For FY 1999: YMP (\$27,244), WAST (\$450), QA (\$1,710), PM (\$1,446), and HR&A (\$3,425). For FY 2000: YMP (\$27,822), WAST (\$270), QA (\$1,710), PM (\$1,446), and HR&A (\$3,691). For FY 2001: YMP (\$23,539), WAST (\$270), QA (\$1,710), PM (\$1,446), and HR&A (\$3,691). For FY 2002: YMP (\$22,239), WAST (\$450), QA (\$1,710), PM (\$1,446), and HR&A (\$3,691).
- (b) This sum includes a request for new budget authority totaling \$370 million, as well as a request that an additional \$39 million be provided from \$85 million in unobligated balances remaining from the FY 1996 Defense Nuclear Waste Disposal Appropriation (Public Law 104-46) and transferred to the Nuclear Waste Disposal account in FY 2000.
- (c) The outyear budget request shown are preliminary and do not necessarily reflect program requirements. Future budget requests for the program have yet to be established and will be determined through the annual budget process.
- (d) Starting in FY 1998, the Quality Assurance budget is included in the Program Direction account under support services.
- (e) Program Direction is included in Total Program Integration in the FY 2001 Congressional Budget Request, but not in the FY 2000 Congressional Budget Request.
- (f) Sources of the appropriation are H.R. 2605, the Energy and Water Development Appropriations Act, 2000 (Sent to President) which was enacted unchanged in Public Law 106-60, and Public Law 106-113 which rescinded \$1,325,000. Allocations to each Program Element are from the FY 2001 Congressional Budget Request Level 3 Chart, Version One, dated January 14, 2000.
- (g) Funding for selected support service contracts has been removed from the YMP, WAST, QA, PM, and HR&A elements and added to the Program Direction element. The funding moved for each fiscal year follows. For FY 1999: YMP (\$27,244), WAST (\$450), QA (\$1,710), PM (\$1,446), and HR&A (\$3,425). For FY 2000: YMP (\$27,600), WAST (\$386), QA (\$1,710), PM (\$1,315), and HR&A (\$3,795). For FY 2001: YMP (\$29,079), WAST (\$700), QA (\$1,710), PM (\$1,529), and HR&A (\$4,110). For FY 2002: YMP (\$26,241), WAST (\$270), QA (\$1,710), PM (\$1,446), and HR&A (\$4,237). For FY 2003: YMP (\$23,409), WAST (\$450), QA (\$1,710), PM (\$1,446), and HR&A (\$4,369).
- (h) \$535K was rescinded from the FY 1999 Nuclear Waste Disposal Fund per the Emergency Steel Loan Guarantee and Emergency Oil and Gas Guaranteed Loan Act of 1999 (H.R. 1664).
- (i) Per P.L. 106-113, a general reduction of .038 percent was applied to the Nuclear Waste Fund (\$899K) and the Defense Nuclear Waste Appropriation (\$426K).
- (j) The outyears shown here are preliminary, and do not necessarily reflect program requirements. Future budget requests for the program have yet to be established and will be determined through the annual executive and Congressional budget process.
- (k) FTEs for FY 2002 and FY 2003 were not provided in the Congressional Budget Request.
- (l) Source of the appropriation is H.R. 5483, FY 2001 Energy and Water Development Appropriations, which was enacted in Public Law 106-377. Allocations to each Program Element are from the OCRWM FY 2001 Budget Allocation Chart as of November 13, 2000.

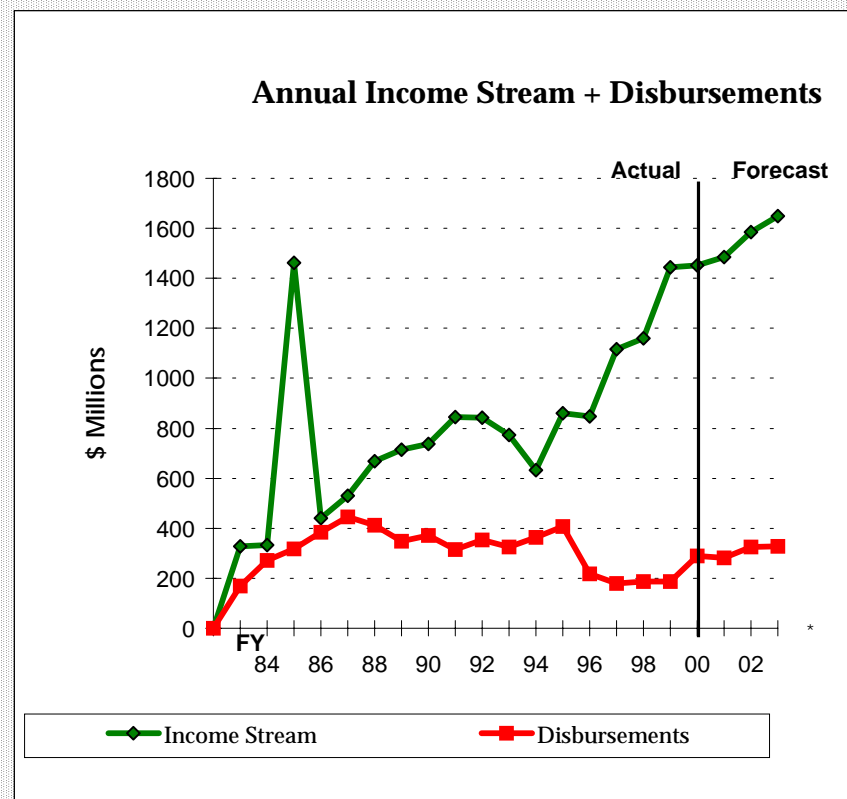
# NUCLEAR WASTE FUND BALANCE AND INCOME STREAM

1-2



\* Each tick mark represents the end of a fiscal year.

Current Values as of September 30, 2000



Sources: Actual data from the "NWF Summary of Cash Balances" issued monthly by the DOE Office of Chief Financial Officer.

Forecast Disbursements are based on FY2000 appropriations and the OCRWM FY2001 Congressional Budget Request, with appropriations adjusted to disbursements using OMB's simplified (50/50) formula plus \$17 million for appropriations to the NRC and TRB.

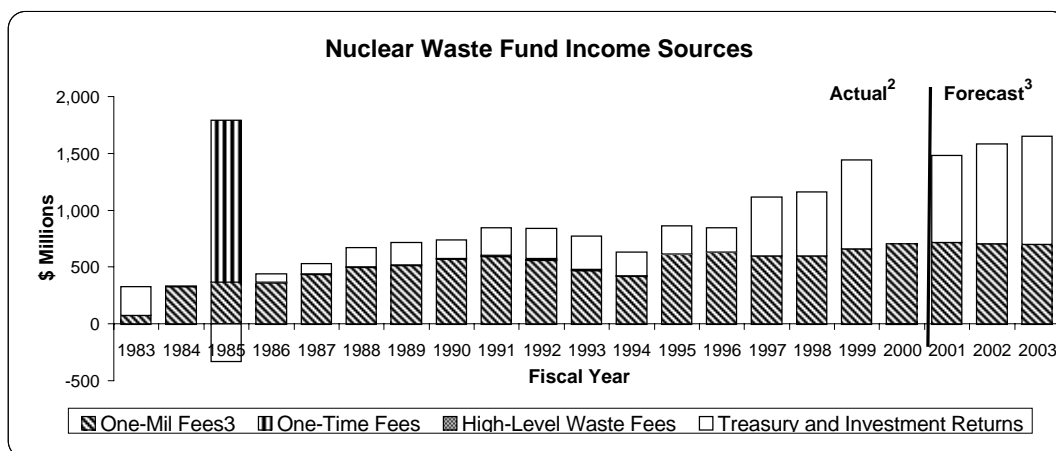
Actual and Forecast disbursements include NRC, NWN, and NWTRB appropriations.

Receipts and Disbursements do not include Defense Nuclear Waste Disposal (DNWD) appropriations of \$100M in FY 1993, \$120M in FY 1994, \$129.430M in FY 1995, \$163.4M in FY 1996, \$200M in FY 1997, \$190M in FY 1998, \$189M in FY 1999, and \$111.6M in FY 2000 because these funds do not flow through the Nuclear Waste Fund.

Forecast kWh Fee Receipts are based on the September 2000 memo from EIA to RW, re: 'Energy Information Administration Nuclear Waste Fund Revenue Projections.'

Investment returns include coupon interest receipts; net premiums and discounts paid or received on bills, notes, and bonds; and amortized discounts on zero-coupon bonds. The NWF Balance includes the face value of bills, notes, and bonds and the purchase price plus amortized discount of zero-coupon bonds.

## Nuclear Waste Fund Income Sources and Disbursements<sup>1</sup>



Fiscal Year	Spent Nuclear Fuel Fees			Defense Fees	Treasury Loan	Investment	Total	Annual Disbursements <sup>5</sup>	NWF Balance
	One-Mil Fees <sup>3</sup>	One-Time Fees	Cumulative Fees	High-Level Waste Fees	Principal (Payment)	Returns <sup>4</sup>	Annual Income		
1983	74	0	74	0	254	0	327	169	158
1984	330	0	404	0	5	0	334	271	221
1985	367	1,427	2,198	0	-258	-74	1,463	317	1,367
1986	362	6	2,566	0	0	73	441	385	1,423
1987	435	6	3,007	0	0	89	530	446	1,507
1988	498	6	3,511	0	0	165	669	412	1,764
1989	513	6	4,030	0	0	196	715	349	2,130
1990	570	6	4,606	0	0	161	737	372	2,495
1991	594	6	5,206	5	0	241	846	315	3,026
1992	560	6	5,772	8	0	268	842	354	3,514
1993	466	11	6,249	0	0	296	773	325	3,962
1994	418	4	6,671	0	0	210	632	364	4,229
1995	615	0	7,286	0	0	246	861	408	4,682
1996	633	1	7,920	0	0	212	847	218	5,311
1997	596	0	8,516	0	0	520	1,116	178	6,249
1998	600	0	9,116	0	0	561	1,161	186	7,224
1999	662	0	9,778	0	0	780	1,443	186	8,481
2000	706	-4	10,480	0	0	752	1,453	290	9,644
Cum-to-date <sup>2</sup>	8,999	1,481	10,480	13	0	4,697	15,189	5,545	9,644
Forecast									
2001	717	0	11,197	0	0	767	1,484	282	10,846
2002	704	0	11,901	0	0	880	1,584	325	12,105
2003	702	0	12,603	0	0	948	1,650	328	13,428

1 Current Values as of September 30, 2000. Rows may not add due to independent rounding. Receipts and Disbursements do not include Defense Nuclear Waste Disposal appropriations of \$100M in FY 1993, \$120M in FY 1994, \$129.430M in FY 1995, \$163.4M in FY 1996, \$200M in FY 1997, \$190M in FY 1998, \$189M in FY 1999, and \$111.6M in FY 2000 because these funds do not flow through the Nuclear Waste Fund.

2 Actual data from the "NWF Summary of Cash Balances" issued monthly by the DOE Office of Chief Financial Officer.

3 Forecast kWh Fee Receipts are based on the September 2000 memo from EIA to RW, re: 'Energy Information Administration Nuclear Waste Fund Revenue Projections.'

4 Investment returns include coupon interest receipts; net premiums and discounts paid or received on bills, notes, and bonds; and amortized discounts on zero-coupon bonds. The NWF Balance includes the face value of bills, notes, and bonds and the purchase price plus amortized discount of zero-coupon bonds.

5 Forecast Disbursements are based on FY2000 appropriations and the OCRWM FY2001 Congressional Budget Request, with appropriations adjusted to disbursements using OMB's simplified (50/50) formula plus \$17 million for appropriations to the NRC and TRB. A actual and Forecast disbursements include NRC, NWN, and NWTRB appropriations, interest on Treasury loans and interest refunded to utilities. Includes Program Expenditures, Treasury Loan Interest (FY84 \$3M, FY85 \$5M) and Interest Refunded to Utilities (FY88 \$7M, FY89 \$1M, FY92 \$7M, FY93 \$41M, FY94 \$48M, FY95 \$19M, FY96 \$1M).

# Draft 1999 Total System Life Cycle Cost Report

1 - 4

Life Cycle Costs (\$B)		
	Case 1 50-Year Operation (1983-2069)	Case 2 125-Year Operation (1983-2144)
Program Integration/Non-OCRWM (NRC, NWTRB)	3.7	4.2
Repository	37.5	41.9
National Transportation	5.6	5.6
Nevada Rail	0.8	0.8
Institutional	4.0	4.4
<b>1999 TSLCC Total</b>	<b>51.6</b>	<b>56.9</b>

Historical Program Cost, 1983 - 1999 <sup>1</sup>	7.7	7.7
Program Cost, Case 1 (2000 - 2069) Case 2 (2000 - 2144)	43.9	49.2
<b>Total Estimate for Program<sup>2</sup></b>	<b>51.6</b>	<b>56.9</b>

Note: All costs are in FY 1999 dollars.

<sup>1</sup> Historical program cost is \$6.3 Billion in year-of-expenditure dollars, as of 1999.

<sup>2</sup> The Total Estimate in the 1998 TSLCC was \$43.69B in FY 1998 dollars (\$44.41B in FY 1999 dollars) for a 100-year operation. The 1998 TSLCC was based on the design in the *Viability Assessment of a Repository at Yucca Mountain*.

Source: FY 2001 Appropriations Briefing, February 24, 2000.



## MANPOWER - FEDERAL PERSONNEL

(Nuclear Waste Fund)

Office	FY 2000 Planned FTEs	Approved FY2000 Ceiling (c)	Total On Board (c)
Office of the Director	(a)	(a)	12
Office of Quality Assurance (b)	(a)	(a)	10
Office of Acceptance, Transportation, & Integration	(a)	(a)	18
Office of Program Management & Administration	(a)	(a)	26
Yucca Mountain Site Characterization Office	<u>(a)</u>	<u>(a)</u>	<u>103</u>
<b>Subtotal</b>	176	178 (d)	169
Nevada Operations Office	<u>6</u>	<u>6</u>	<u>6</u>
<b>Subtotal</b>	6	6	6
DOE HQ Matrix Support			
CI/PA	2	2	2
EI	1	1	1
GC	5	5	5
EH	1	1	1
MA	4	4	4
CR	<u>2</u>	<u>2</u>	<u>2</u>
<b>Subtotal</b>	<u>15</u>	<u>15</u>	<u>15</u>
<b>TOTAL</b>	<b>197</b>	<b>199</b>	<b>190</b>

Source: RW-56 Human Resources Division as of September 24, 2000.

(a) FY 2000 Planned FTEs and Target are not established at the office level

(b) Ten FTEs support YMSCO; duty stationed in Nevada

(c) Head count - Approved Workforce 21 Staffing Ceiling (3/31/99)

(d) Reflects the transfer of one FTE to the Office of Nuclear Energy, Science and Technology to support Accelerator Transmutation of Waste functions.

## MANPOWER - CONTRACTOR PERSONNEL

<b>Contractor</b>	<b>Actual FTEs (FY 1997)</b>	<b>Actual FTEs (Sep 1997)</b>	<b>Actual FTEs (FY 1998)</b>	<b>Actual FTEs (Sep 1998)</b>	<b>Actual FTEs (FY 1999)</b>	<b>Actual FTEs (Sep 1999)</b>	<b>Actual FTEs (FY 2000)</b>	<b>Actual FTEs (Sep 2000)</b>
TRW Environmental Safety Systems (TESS)	1,739.5	2,222.5	1952.6	2017.7	1697.1	1547.9	1732.9	1850.1
USGS	124.2	122.3	115.5	115.1	108.4	109.6	85.2	79.1
KENROB and Associates, Inc.	71.3	95.5	52.6	44.8	30.1	0.0	0.0	0.0
RSIS					18.9	52.5	57.3	53.7
SAIC/QATSS	52.5	82.0	77.8	82.0	78.9	100.4	77.3	112.3
Booz-Allen & Hamilton Inc. (a)	27.2	49.0	72.6	49.0	85.4	81.6	90.1	108.3
Alpha Services	26.8	25.0	26.9	25.0	26.8	29.0	27.7	28.2
Jason & Associates	12.4	24.4	50.8	24.4	40.0	21.1	33.5	57.4
Other (Minors) (b)	7.7	8.5	6.7	7.5	5.5	5.6	5.0	6.8
	<b>2,061.6</b>	<b>2,629.2</b>	<b>2,355.5</b>	<b>2,365.5</b>	<b>2,091.1</b>	<b>1,947.7</b>	<b>2,109.2</b>	<b>2,295.7</b>

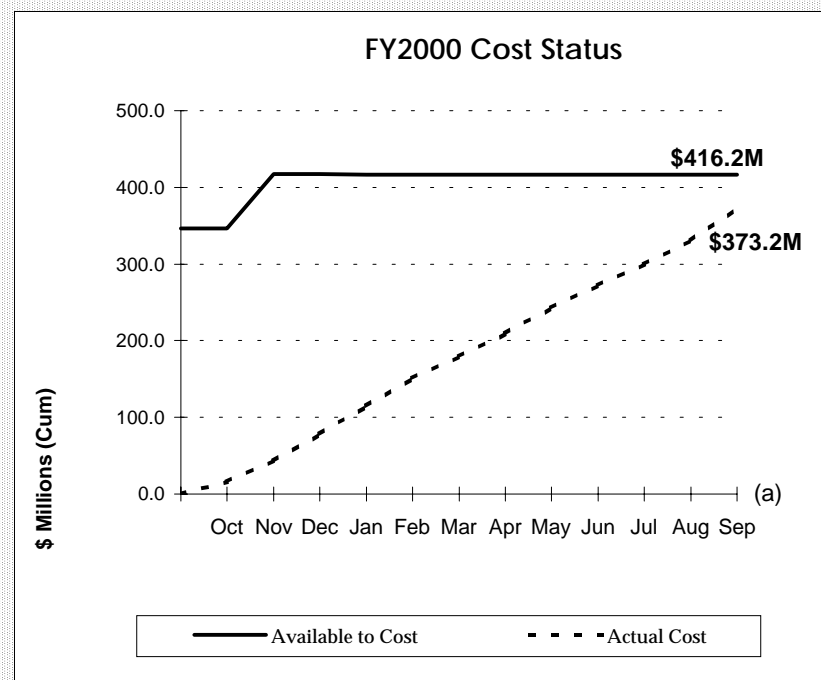
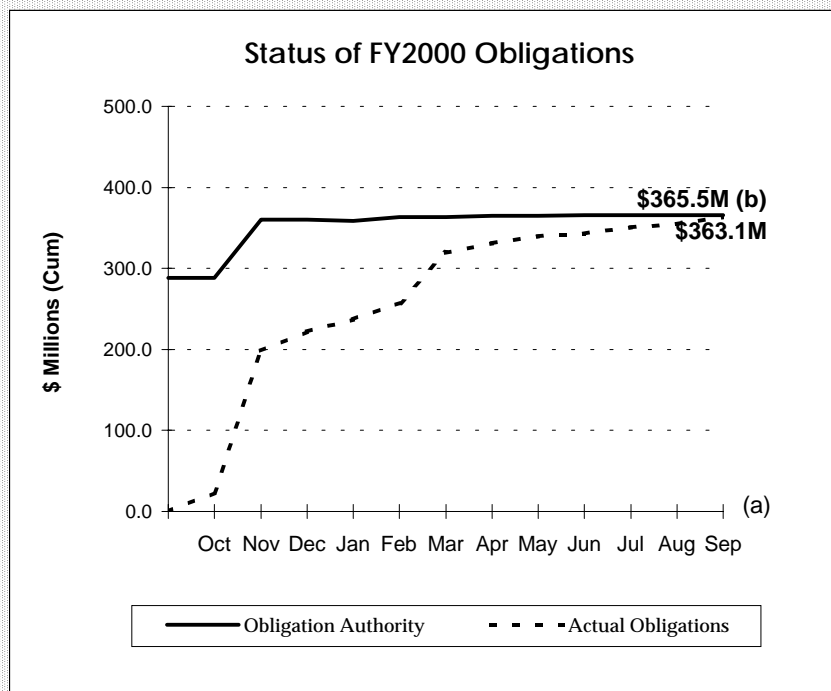
Columns may not add due to independent rounding.

Sources: Yucca Mountain Site Characterization Project Multi-year Planning System (MYPS) as of September 30, 2000  
plus TRW Environmental Safety Systems Inc. (TESS) reported indirect labor as of September 30, 2000.

(a) Contract awarded 2nd Quarter, FY 1997

(b) Includes Wackenhut Services, Inc. and Quality Services Associates Inc..

## FY2000 OBLIGATION AND COST STATUS PROGRAM



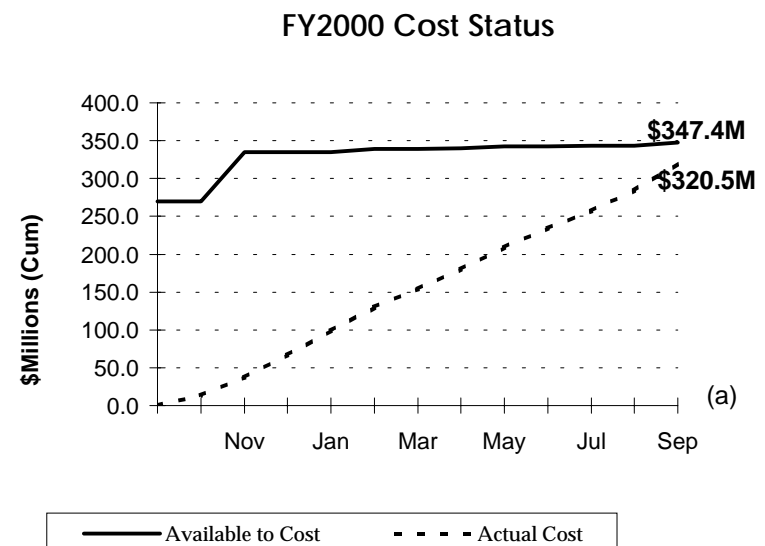
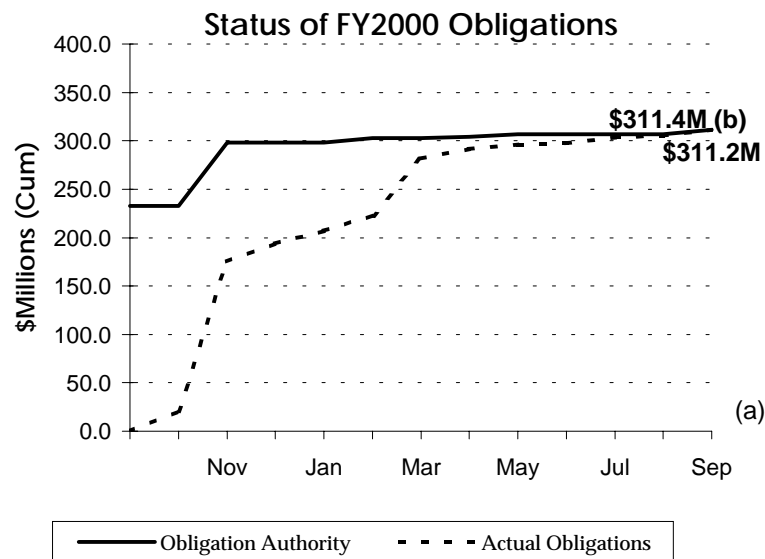
(a) Each tick mark represents the end of a calendar month.

(b) Total Obligational Authority (TOA) includes \$6.8M of prior year obligations which have been de-obligated during FY 2000.

Note: Quantities shown are based on the FY 2000 September AFP and the September 30, 2000 FIS report.

Sources: Financial Information System Reports and Approved Funding Programs for each calendar month shown.

## FY2000 OBLIGATION AND COST STATUS YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT



Note: Charts do not include Yucca Mountain quality assurance.

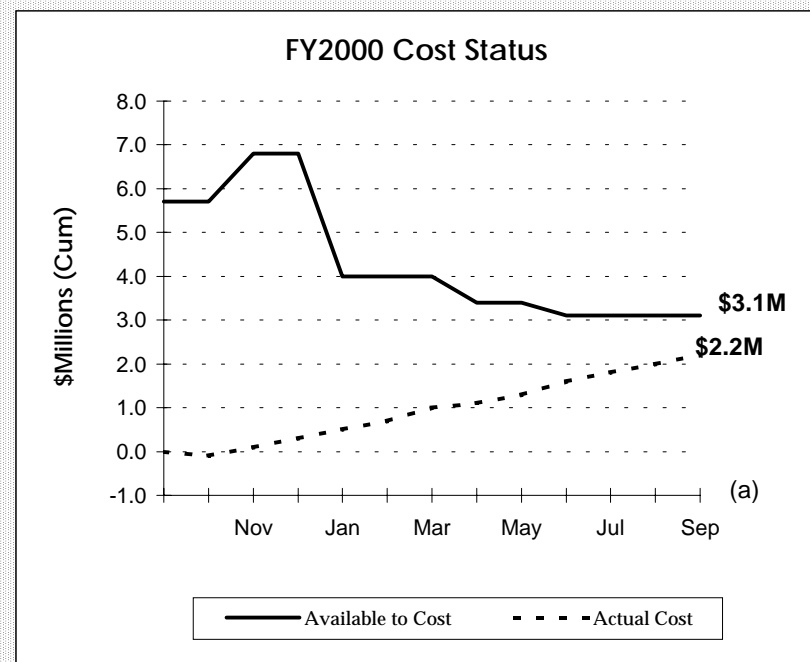
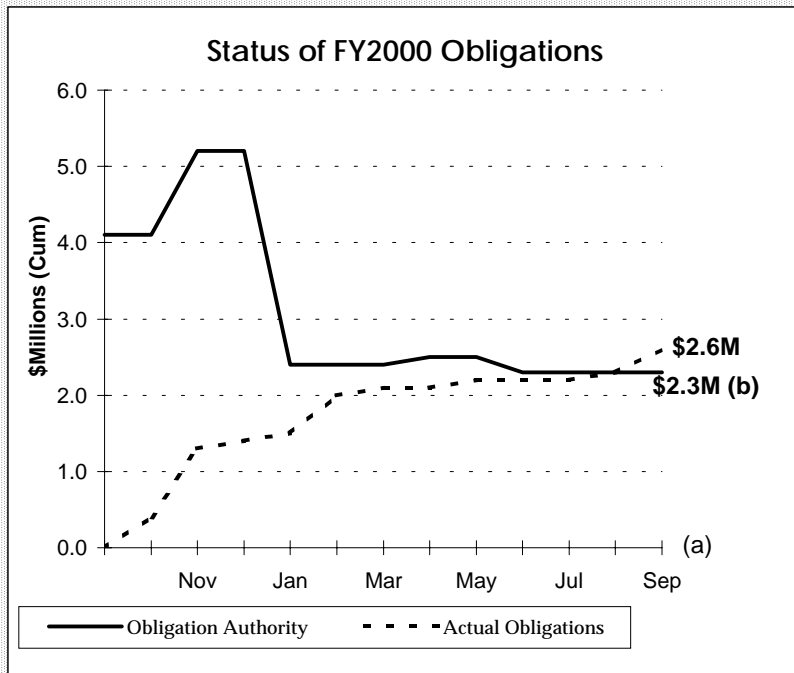
(a) Each tick mark represents the end of a calendar month.

(b) Total Obligational Authority (TOA) includes \$6.2M of prior year obligations which have been de-obligated during FY 2000.

Note: Quantities shown are based on the FY 2000 September AFP and the September 30, 2000 FIS report.

Sources: Financial Information System Reports and Approved Funding Programs for each calendar month shown.

## FY2000 OBLIGATION AND COST STATUS WASTE ACCEPTANCE, STORAGE, AND TRANSPORTATION



Note: Charts do not include WAST quality assurance.

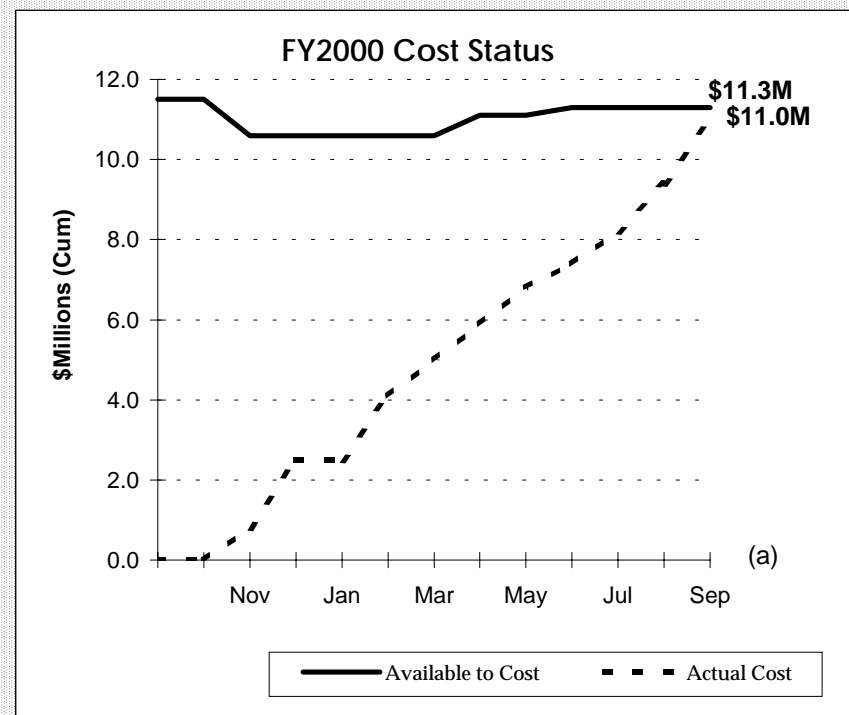
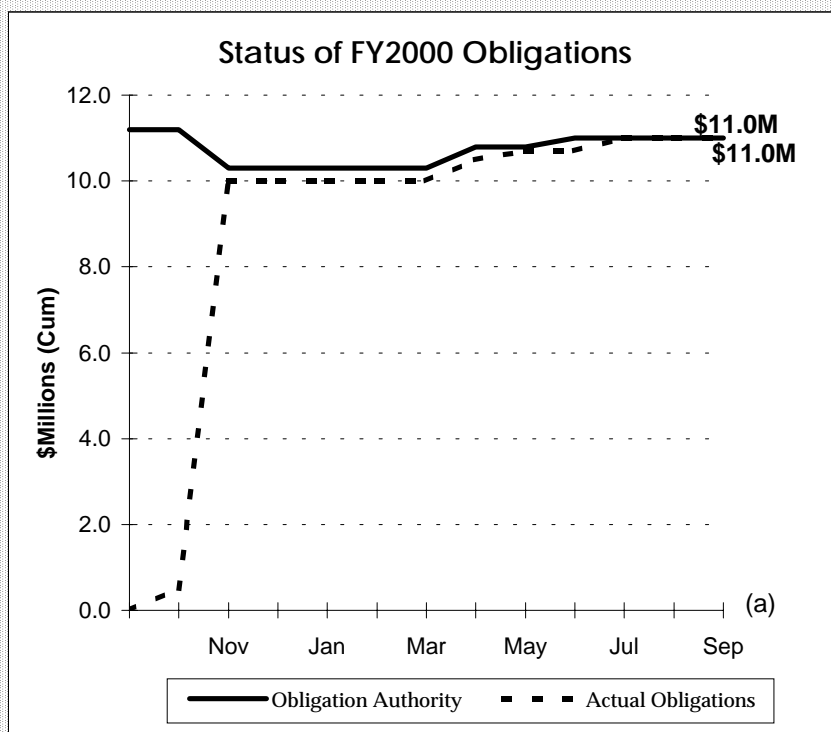
(a) Each tick mark represents the end of a calendar month.

(b) Total Obligational Authority (TOA) includes \$0.1M of prior year obligations which have been de-obligated during FY 2000.

Note: Quantities shown are based on the FY 2000 September AFP and the September 30, 2000 FIS report.

Sources: Financial Information System Reports and Approved Funding Programs for each calendar month shown.

## FY2000 OBLIGATION AND COST STATUS QUALITY ASSURANCE



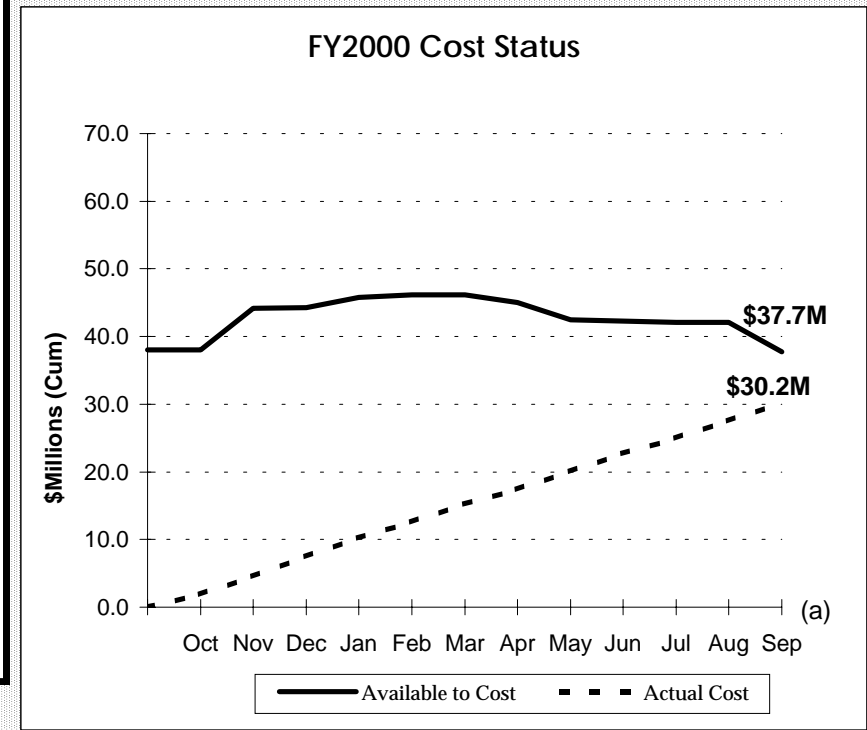
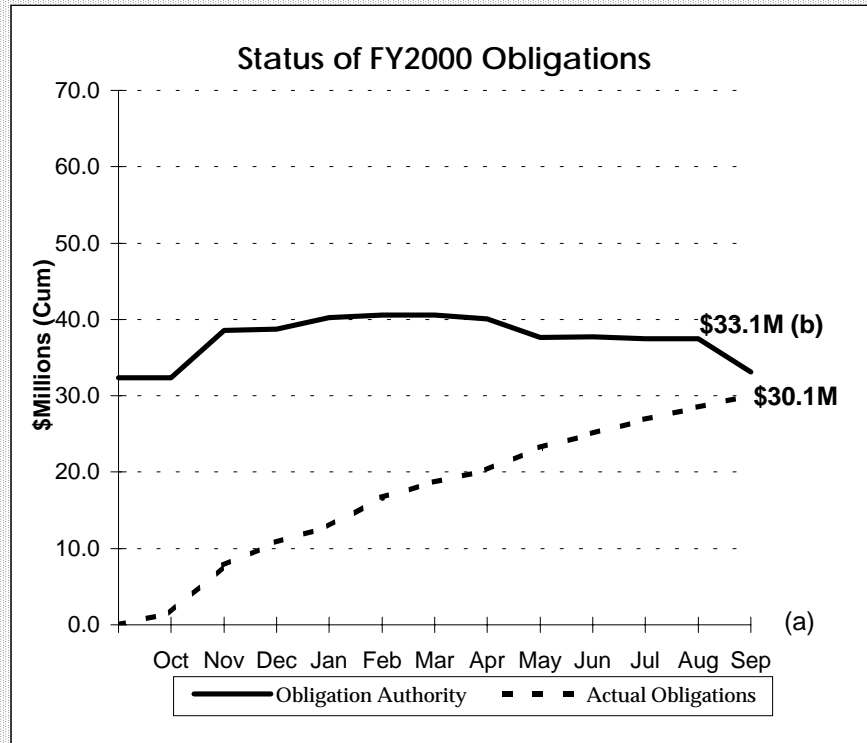
Note: Charts include Yucca Mountain and WAST quality assurance.

(a) Each tick mark represents the end of a calendar month.

Note: Quantities shown are based on the FY 2000 September AFP and the September 30, 2000 FIS report.

Sources: Financial Information System Reports and Approved Funding Programs for each calendar month shown.

## FY2000 OBLIGATION AND COST STATUS PROGRAM MANAGEMENT



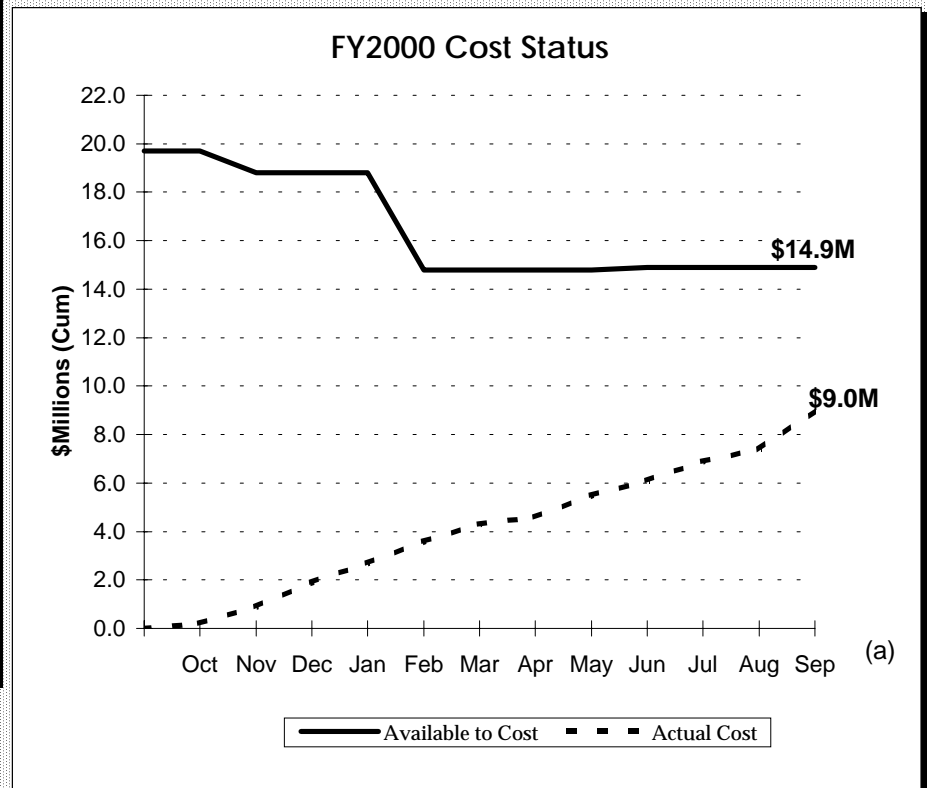
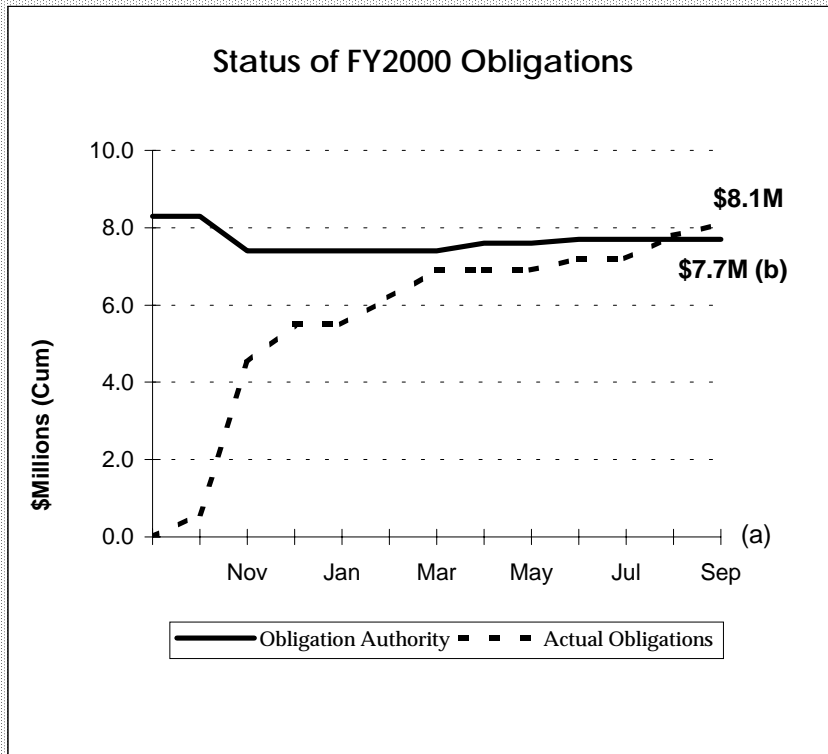
(a) Each tick mark represents the end of a calendar month.

(b) Total Obligational Authority (TOA) includes \$0.4M of prior year obligations which have been de-obligated during FY 2000.

Note: Quantities shown are based on the FY 2000 September AFP and the September 30, 2000 FIS report.

Sources: Financial Information System Reports and Approved Funding Programs for each calendar month shown.

## FY2000 OBLIGATION AND COST STATUS HUMAN RESOURCES AND ADMINISTRATION



(a) Each tick mark represents the end of a calendar month.

(b) Total Obligational Authority (TOA) includes \$0.1M of prior year obligations which have been de-obligated during FY 2000.

Note: Quantities shown are based on the FY 2000 September AFP and the September 30, 2000 FIS report.

Sources: Financial Information System Reports and Approved Funding Programs for each calendar month shown.



# Civilian Radioactive Waste Management Program/Major Historical Milestones (CY 1983-1992)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
<b>LEGISLATION</b>	President signs Nuclear Waste Policy Act (NWPA) establishing OCRWM 1/83			Congress enacts Nuclear Waste Policy Amendments Act (NWPAA) 12/87					Congress Enacts Energy Policy Act 10/92	
<b>EXTERNAL ACTIONS</b>	NRC publishes waste confidence rulemaking 8/84	President authorizes OCRWM to dispose DHLW 4/85	NRC issues first license for independent dry spent fuel storage 7/86	Nuclear Waste Technical Review Board (NWTRB) issues first report 3/90	MRS commission submits report to Congress 11/89	NRC publishes update to waste confidence rulemaking 9/89		8/90 Senate confirms D. Leroy as the nuclear waste negotiator	1/91 NRC accepts OCRWM QA program	
<b>PROGRAM MANAGEMENT</b>	Issue Draft Mission Plan 6/84 B. Rusche named first Director of OCRWM 6/84	Issue Mission Plan 6/85	Issue Draft Mission Plan Amendment 1/87	Issue Mission Plan Amendment 6/87	Issue Draft Mission Plan Amendment 6/88	Issue Management Systems Improvement Strategy (MSIS) 8/90 J. Bartlett named Director of OCRWM 4/90	Issue Secretary's 60-day report to Congress 11/89	Award M&O Contract 2/91	Issue Draft Mission Plan Amendment 9/91	First Director's Forum 5/92
<b>FIRST REPOSITORY</b>	Issue final repository siting guidelines (10 CFR 960) 12/84 Issue Draft EAs for 9 sites 12/84 2/83 Identify 9 potentially suitable sites	Issue final geologic & environ. Char. Reports 9/85	Publish Final EAs Secretary nominates 5 sites President approves 3 sites for characterization NWPAA mandates Site Char. At Yucca Mountain only 12/87	Issue SCP 12/88 Issue consultation draft Site Char. Plan (SCP) 1/88 Complete ESF Title I Design 1/88	12/88 Issue Section 175 socioeconomic report	Issue early site suitability evaluation report 2/92	Receive air quality permits 6/91	Receive final permit from Nevada 3/92		
<b>SECOND REPOSITORY</b>	Issue draft siting guidelines 2/83	Issue draft area recommendation report (12 areas in 7 states) 1/86 Issue final region-to-area screening methodology 4/85	Postpone site-specific work for second repository indefinitely NWPAA terminates second repository program 12/87	<b>YUCCA MOUNTAIN, NV (TUFF)</b> <b>HANFORD, WA (BASALT)</b> <b>DEAF SMITH COUNTY, TX (SALT)</b>	Issue updated ESF Title I Design summary report 10/91	Issue report on alternatives for ESF config. 1/91	Start ESF Title II (KD2) Design 12/91	ESF Start 10/92		
<b>MONITORED RETRIEVABLE STORAGE (MRS)/ MULTI-PURPOSE CANISTER (MPC)</b>	Start MRS conceptual design 2/83	Issue MRS Environmental Assessment 2/86 Issue report on need for & feasibility of an MRS 6/85	3/87 Submit proposal for an MRS facility at Oak Ridge, TN Oak Ridge proposal annulled & revoked by NWPAA 12/87	Issue Clinch River MRS conceptual design report 9/85	Start MRS systems study 6/88	Issue report on DOE position on MRS facility 5/89 Issue MRS systems study summary report 6/89	4/92 Award first Phase II grants Award first Phase I grants 10/91 Announce grants availability 6/91	Generic MRS Conceptual Design Report 11/92	Start Multi-Purpose Canister (MPC) feasibility study 10/92	
<b>TRANSPORTATION</b>		Issue draft Institutional Plan 9/85	1/86 Issue Business Plan			Start LWT & rail/ barge cask final design 1/90	Issue draft Section 180(c) strategy for public comment 1/92 Announce strategy to acquire existing technology casks 7/91	Issue final Section 180(c) strategy 11/92		
<b>WASTE ACCEPTANCE</b>	Sign standard contract with utilities	Receive one-time fee payment 6/85	Issue first annual capacity report 6/87					Issue acceptance priority ranking 12/91	Begin receiving delivery 1/92	commitment schedules

# Civilian Radioactive Waste Management Program/Major Historical Milestones (CY 1993-1999)

	1993	1994	1995	1996	1997	1998	1999
<b>LEGISLATION</b>							
<b>EXTERNAL ACTIONS</b>	Senate Confirms R. Stalling as the Nuclear Waste Negotiator Stakeholders meeting u 8/93 u 11/93	5/94 Stakeholders meeting 8/94 Site Suitability meetings (also 12/94)	1/94 MPC EIS scoping meetings (also 12/94)		DOE Issued Draft Environmental Impact Statement EPA Published Notice of Proposed 40 CFR 197 Rulemaking NRC Published Notice of Proposed 10 CFR 63 Rulemaking	DOE Issued VA 12/98 u 2/99	8/99
<b>PROGRAM MANAGEMENT</b>	Developed Proposed Program Approach (PPA) 5/94 D. Dreyfus named Director of OCRWM t 10/93	Implement PPA 10/94	12/94 First OCRWM Program Plan Issued	Plutonium Waste Forms added to CRWMS Baseline Complete Technical Baseline Suite Revision 2 5/96 8/96	PBCCB Approved Program Multi-Year Baseline t 12/97		I. Itkin named Director of OCRWM 12/99 t
<b>FIRST REPOSITORY</b>	Released draft summary report on site suitability process 8/94		Approve TSPA-VA Methodology & Assumptions Report 8/97	Draft License Application Plan Complete 9/97	Publish Notice of Proposed 10CFR960 Rulemaking t 12/96	OCRWM Accepts Viability Assessment (VA) 9/98	Publish Supplemental Notice of Proposed 10CFR960 Rulemaking 11/90t
<b>YUCCA MOUNTAIN, NV(TUFF)</b>	Complete ESF starter tunnel 9/93 Award Tunnel Boring Machine (TBM) Contract 5/93t	Deliver TBM to ESF site t 4/94	Begin TBM test-phase ops. t 9/94	Complete GDF Drift#1 Construction 8/96 Muck conveyor system installed 7/95	Complete Excavation Across the Repository Block Station Start ECRB Cross Drift Excavation Initiate Drift-Scale Thermal Test Daylight TBM at South Portal t 4/97	Start Cross Drift TBM Operations 4/98	9/98
<b>ESF</b>	Issue initial report for Repository/Waste Package Advanced Conceptual Design (ACD)8/94		Complete repository & waste package advanced 3/96 conceptual design report t		Complete Phase I Design for VA 9/97		Completed License Application Design Selection Report t 6/99
<b>REPOSITORY DESIGN</b>			Submit Actinide-only BUC Topical Report Rev. 1 to NRC 5/97	Submit Phase I CISF TSAR Rev. 0 to NRC 5/97			
<b>MONITORED RETRIEVABLE STORAGE/MPC</b>	Funding for grants suspended by Congress t 11/93	Office of Nuclear Waste Negotiator Expired t 1/95	Transfer MPC EIS to Department of Navy t 12/95	Submit DTS TSAR to NRC t 9/96		Submit Actinide-Only Burn-Up Credit (BUC) Topical Report Rev. 2 to NRC t 10/98	
<b>TRANSPORTATION</b>	Complete draft MPC conceptual design Issue final MPC feasibility study t 1/93	Issue RFP for MPC system 6/94 t	Approve MPC conceptual design t 9/94	Award MPC design contract t 4/95	MPC development phased out 7/96 Issue Section 180(c) Notice of Revised Proposed Policy and Procedures 7/97		Issue NWPA Section 180(c) Notice of Revised Proposed Policy & Procedures t 4/98
<b>MPC CONCEPTUAL DESIGN (M&amp;O)</b>	Complete draft transportation plan t 6/94		Issue Notice of Expression of Interest for market-drive approach 5/96	Issue Section 180(c) Notice of Proposed Policy & Procedures 5/96	Issue Draft RFP for RSAs t 12/96		
<b>LEGAL-WEIGHT TRUCK (LWT) CASK FINAL DESIGNS</b>	Submit GA-4/GA-9 Cask SARs to NRC t 8/94			4/96 GA-4/9 cask development phased out			
<b>RAIL/BARGE CASK FINAL DESIGN</b>							
<b>WASTE ACCEPTANCE</b>	Issue NOI on interim spent fuel 5/94 storage facility t			DOE notifies Utilities of fuel acceptance delay 12/96	U.S. Court rules DOE must accept 7/96 waste by 1/31/98 t		

A-2

**PROGRAM COST HISTORY <sup>(d)</sup>**  
**(NUCLEAR WASTE FUND AND DEFENSE APPROPRIATION)**  
(dollars in thousands)

	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	TOTAL
<b>OCRWM</b>																			
<b>FIRST REPOSITORY</b>																			
Basalt Project	42,959	60,307	69,848	104,487	128,179	61,707	8,656	4,592	1,368	909	475	221	71	3	0	0	-12	0	483,771
Yucca Mountain Project	50,375	65,285	63,527	89,981	103,172	140,857	180,189	180,564	181,148	189,437	229,053	279,713	377,469	249,298	274,625	341,300	296,542	320,504	3,613,041
Salt Project	64,079	83,838	87,843	98,017	115,070	54,220	9,486	1,468	412	-193	525	-257	282	-155	27	-238	-73	230	514,579
RTP/Technical Support					37,404	47,667	38,072	17,855	5,743	11,335	481	108	533	-2	0	0	17	0	159,213
<b>SECOND REPOSITORY</b>	8,376	17,094	22,370	26,028	6,988	375	58	0	0	0	0	0	-3	5	0	0	0	0	81,291
<b>WAST PROJECT</b>																			
MRS	3,723	10,436	15,339	5,925	1,384	1,364	1,566	2,109	5,459	21,336	15,385	3,698	8,152	114	0	0	-11	0	95,979
Engineering Development (a)	0	0	179	3,097	10,557	7,991	5,323	10,255	9,055	6,398	4,290	12,065	9,709	15,381	947	328	-4	-18	95,551
Transportation System	0	1,541	2,226	5,768	10,835	15,582	25,901	21,628	19,792	16,635	15,149	15,167	10,736	5,665	3,317	2,114	267	-35	172,288
Waste Acceptance (b)											6,630	3,721	4,748	4,195	675	738	972	1,116	22,796
Project Integration (e)													1,785	3,611	1,033	1,752	626	1,003	9,810
Spent Fuel Storage														2,331	3,318	1,588	-187	174	7,224
<b>PROGRAM INTEGRATION</b>																			
Quality Assurance	0	0	0	0	0	136	471	1,588	2,911	3,179	10,593	12,628	11,744	18,297	15,478	10,670	10,513	11,006	109,215
Program Management & Integration (c,e)	8,651	36,382	54,350	64,824	54,909	51,850	60,830	57,978	71,225	66,417	59,347	50,855	51,331	34,845	31,037	33,314	29,791	30,193	848,131
Human Resources & Administration	147	1,108	574	584	686	275	283	7,661	5,287	10,795	28,433	27,096	31,065	10,825	9,344	10,240	7,347	8,996	160,744
<b>TOTAL (OCRWM)</b>	<b>178,311</b>	<b>275,992</b>	<b>316,255</b>	<b>398,711</b>	<b>469,185</b>	<b>382,025</b>	<b>330,836</b>	<b>305,698</b>	<b>302,400</b>	<b>326,248</b>	<b>370,360</b>	<b>405,015</b>	<b>507,622</b>	<b>344,413</b>	<b>339,801</b>	<b>401,806</b>	<b>345,789</b>	<b>373,169</b>	<b>6,373,634</b>
<b>OCRWM</b>																			
<b>NWF Appropriation</b>	178,311	275,992	316,255	398,711	469,185	382,025	330,836	305,698	302,400	326,248	271,093	284,883	381,879	195,486	145,611	193,837	155,196	267,360	5,181,006
<b>Defense Appropriation (f)</b>											99,267	120,132	125,743	148,927	194,189	207,969	190,593	105,809	1,192,628
<b>TOTAL (OCRWM)</b>	<b>178,311</b>	<b>275,992</b>	<b>316,255</b>	<b>398,711</b>	<b>469,185</b>	<b>382,025</b>	<b>330,836</b>	<b>305,698</b>	<b>302,400</b>	<b>326,248</b>	<b>370,360</b>	<b>405,015</b>	<b>507,622</b>	<b>344,413</b>	<b>339,801</b>	<b>401,806</b>	<b>345,789</b>	<b>373,169</b>	<b>6,373,634</b>
<b>NON-OCRWM (g)</b>																			
NRC Fees						19,932	18,674	22,870	19,650	19,962	21,100	22,000	22,000	11,000	15,000	15,000	17,000	19,150	243,338
NWTRB								2,000		3,294	2,060	2,160	2,664	2,531	2,600	2,600	2,600	2,600	25,109
NWN								5,959				1,000	1,000						7,959
<b>TOTAL (NON-OCRWM)</b>						<b>19,932</b>	<b>18,674</b>	<b>30,829</b>	<b>19,650</b>	<b>23,256</b>	<b>23,160</b>	<b>25,160</b>	<b>25,664</b>	<b>13,531</b>	<b>17,600</b>	<b>17,600</b>	<b>19,600</b>	<b>21,750</b>	<b>276,406</b>

Note: Each cost entry is rounded to the nearest thousand. Rows and columns may not add due to this independent rounding.

(a) Engineering Development costs include MPC development from FY 1993 through FY 1999.

(b) Waste Acceptance costs prior to FY 1993 were included in Program Management and Integration.

(c) Includes Debt Service from FY 1983 to FY 1985 of \$3.316M, \$4.472M, and \$2.512M, respectively. Does not include FY 1988 and FY 1989 NRC Fees costs of \$38,606,205 recorded in FIS in FY 1989.

(d) All OCRWM cost categories are OCRWM baselined projects except for First Repository, Program Integration, and the subdivisions of the WAST Project. OCRWM costs are from End-of-Year Financial Information Systems Reports.

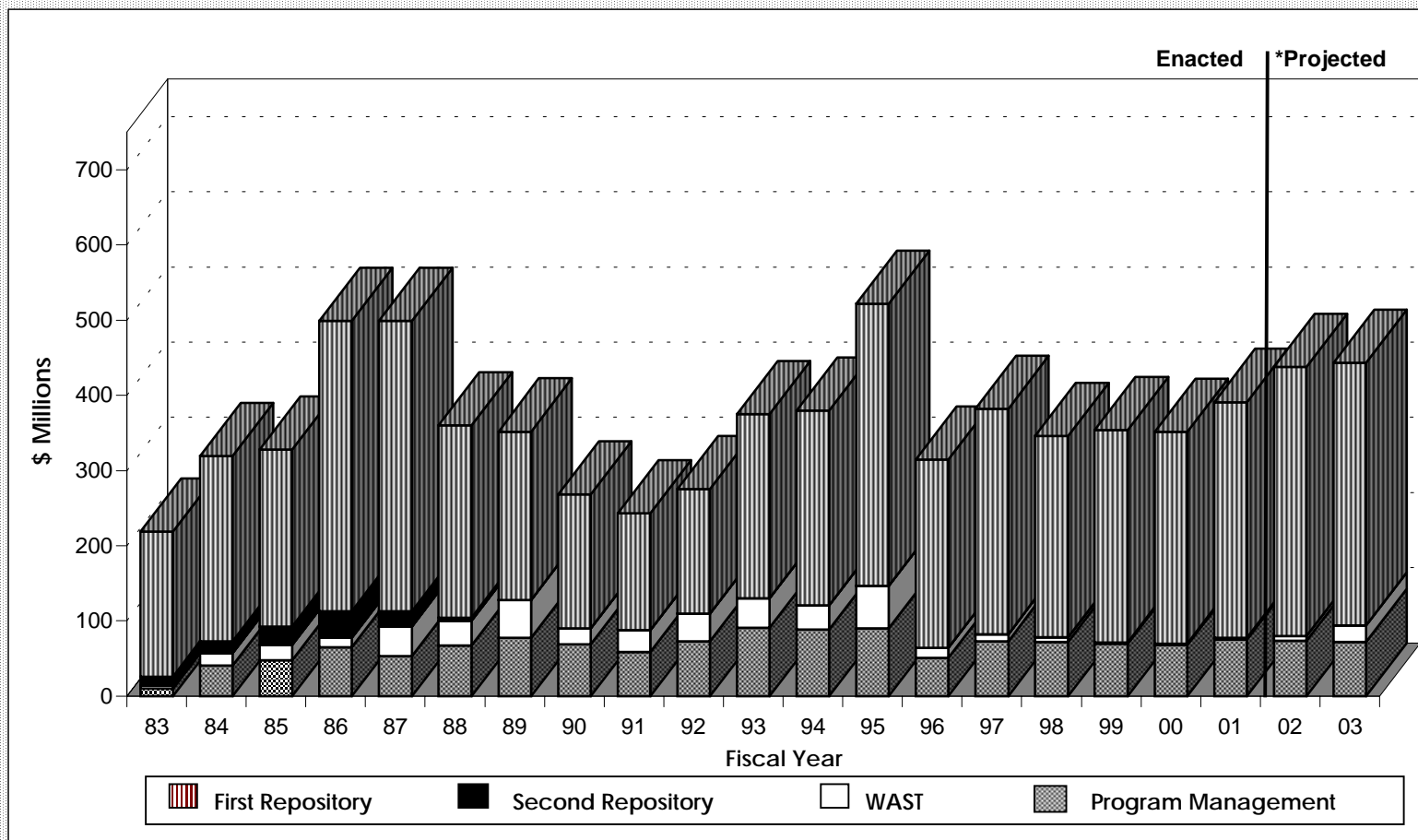
Non-OCRWM costs before FY 1990 are NRC reported costs while after FY 1989 they are appropriations.

(e) MRS Project Support costs are in Program Management and Integration in fiscal years 1993, 1994, and 1996 and in WAST Project Integration in fiscal year 1995.

(f) Does not include costs from the \$5M in FY91 and \$7.5M in FY92 deposited into the nuclear waste fund by the Defense Environmental Restoration and Waste Management Program for the defense high-level waste disposal fee.

(g) All costs are appropriations, except for NRC Fees in fiscal years 1988 and 1989, which are the actual costs reported by NRC.

## Program Budget History



Note- Funding for support services was moved from WAST and First Repository to Program Management starting in FY 1997.

Sources: Enacted Appropriations  
 \*FY02/03 from the FY 2001 Congressional Budget Request.

First Repository includes BWIP, SRPO, YMP, RTP, and Technical support through FY92. Includes \$100M in FY93, \$120M in FY94, \$129.43M in FY95, \$163.4M in FY96, \$200M in FY97, \$190M in FY98, \$189M in FY99, \$111.6M in FY00, \$200M in FY01, \$112M in FY02, and \$113M in FY03 from the Defense Nuclear Waste Disposal Appropriation. Does not include \$4M appropriated in FY99 from general revenues to assess accelerator transmutation of waste (ATW) technology.

**PROGRAM BUDGET HISTORY <sup>(a)</sup>**  
**(NUCLEAR WASTE FUND AND DEFENSE APPROPRIATION) <sup>(b)</sup>**  
**(dollars in thousands)**

	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97 (g)	FY98 (g)	FY99 (g,h)	FY00 (g,i)	FY01	Total
<b>OCRWM (By category)</b>																				
FIRST REPOSITORY	192,537	246,560	235,246	386,050	386,446	256,000	223,700	177,816	155,180	165,550	244,697	259,509	375,270	250,000	299,459	267,710	281,879	281,175	313,542	4,998,326
SECOND REPOSITORY	12,322	16,270	24,709	35,500	19,800	3,500														112,101
WAST PROJECT	3,499	15,900	20,344	12,925	39,700	33,000	51,000	21,200	29,310	36,848	39,630	31,866	56,729	13,600	9,360	5,947	1,850	1,795	2,661	427,164
PROGRAM MANAGEMENT (c, d)	10,242	40,891	47,370	64,562	53,054	67,500	77,132	69,040	58,340	72,673	90,744	88,625	90,061	50,867	73,181	72,343	69,736	68,205	74,871	1,239,437
<b>TOTAL (OCRWM) (e)</b>	<b>218,600</b>	<b>319,621</b>	<b>327,669</b>	<b>499,037</b>	<b>499,000</b>	<b>360,000</b>	<b>351,832</b>	<b>268,056</b>	<b>242,830</b>	<b>275,071</b>	<b>375,071</b>	<b>380,000</b>	<b>522,060</b>	<b>314,467</b>	<b>382,000</b>	<b>346,000</b>	<b>353,465</b>	<b>351,175</b>	<b>391,074</b>	<b>6,777,028</b>
<b>OCRWM (By Approp)</b>																				
NWF Appropriation	218,600	319,621	327,669	499,037	499,000	360,000	351,832	268,056	242,830	275,071	275,071	260,000	392,630	151,067	182,000	156,000	164,465	239,601	191,074	5,373,624
Defense Approp (e)										100,000		120,000	129,430	163,400	200,000	190,000	189,000	111,574	200,000	1,403,404
<b>TOTAL (OCRWM) (e)</b>	<b>218,600</b>	<b>319,621</b>	<b>327,669</b>	<b>499,037</b>	<b>499,000</b>	<b>360,000</b>	<b>351,832</b>	<b>268,056</b>	<b>242,830</b>	<b>275,071</b>	<b>375,071</b>	<b>380,000</b>	<b>522,060</b>	<b>314,467</b>	<b>382,000</b>	<b>346,000</b>	<b>353,465</b>	<b>351,175</b>	<b>391,074</b>	<b>6,777,028</b>
<b>NON-OCRWM</b>																				
NRC Fees							15,000	49,970	19,650	19,962	21,100	22,000	22,000	11,000	11,000	15,000	17,000	19,150	21,600	264,432
NWTRB								2,000		3,294	2,060	2,160	2,664	2,531	2,531	2,600	2,600	2,600	2,900	27,940
NWN (f)								5,959				1,000	1,000	0	0	0	0	0	0	7,959
<b>TOTAL (NON-OCRWM)</b>							<b>15,000</b>	<b>57,929</b>	<b>19,650</b>	<b>23,256</b>	<b>23,160</b>	<b>25,160</b>	<b>25,664</b>	<b>13,531</b>	<b>13,531</b>	<b>17,600</b>	<b>19,600</b>	<b>21,750</b>	<b>24,500</b>	<b>300,331</b>

- (a) The source for each fiscal year's budget authority is the last Congressional Budget Request (CBR) which listed the BA for that year. For example, FY 1995 BA was last listed in the FY 1997 CBR.
- (b) This chart includes budget authority derived from the Nuclear Waste Fund which was appropriated for nuclear waste disposal, the Nuclear Waste Technical Review Board, the Nuclear Regulatory Commission, and the Nuclear Waste Negotiator. It also includes appropriations for defense nuclear waste disposal. This chart does not include non-Program budget authority such as the \$4M appropriated from general revenues in FY 1999 to assess accelerator transmutation of waste (ATW) technology nor sums appropriated for energy supply R&D activities conducted by OCRWM.
- (c) FY95 reflects the rescission of \$196K. FY96 reflects the rescission of \$559K by P.L. 104-134
- (d) Includes \$26K in FY95 and \$26K in FY96 from the DOE Departmental Administration appropriation funded from sources other than the NWF.
- (e) FY96 does not include \$85M appropriated for Interim Storage Facility (ISF), but not authorized. Does not include the \$5M in FY91 and \$7.5M in FY92 deposited into the nuclear waste fund by the Defense Environmental Restoration and Waste Management Program for the defense high-level waste disposal fee.
- (f) FY94 funded from sources other than the NWF.
- (g) First Repository and WAST Project support services funding is included in Program Management after FY 1996. FY98 reflects the rescission of \$4 million appropriated for NRC to use to license an MPC design.
- (h) The Emergency Steel Loan Guarantee and Emergency Oil and Gas Guaranteed Loan Act of 1999 (H.R. 1664) rescinded \$535,000 of FY 1999 funds from the Nuclear Waste Disposal Fund appropriation.
- (i) For FY 2000, Public Law 106-113 rescinded \$426,000 from the Defense Nuclear Waste Fund appropriation and \$899,000 from the Nuclear Waste Disposal Fund appropriation.